

WHAT IS CLAIMED IS:

1. A method of filtering a signal in a wireless communication system comprising:

providing a signal to a first filter to generate a filtered output;

comparing the filtered output to a threshold value;
and

activating a second filter when the filtered output is within a predetermined range of the threshold value.

2. The method of Claim 1, further comprising providing a nearly constant filter length of the first filter.

3. The method of Claim 1, further comprising removing demodulator noise with the first filter.

4. The method of Claim 1, further comprising setting a time constant of the second filter based on input energy estimates.

5. The method of Claim 1, further comprising setting a time constant of the second filter based on searcher or over-the-air parameters.

6. The method of Claim 1, further comprising setting a dynamic time constant for the second filter.

7. The method of Claim 6, further comprising setting the dynamic time constant of the second filter based on input energy estimates.

8. The method of Claim 6, further comprising setting the dynamic time constant of the second filter based on searcher or over-the-air parameters.

9. The method of Claim 1, further comprising bypassing the second filter when the filtered output is beyond the predetermined range of the threshold value.

10. The method of Claim 1, further comprising setting the threshold value to T_{DROP} .

11. The method of Claim 10, wherein the second filter is a $(N-1)/N$ type filter.

12. The method of Claim 11, further comprising providing the output of the second filter to a pilot set maintenance function.

13. A mobile station for use in a wireless communication system comprising a first filter which receives a signal and a second filter, wherein an output of the first signal is filtered by the second filter when the output of the first filter is within a range of a threshold value.

14. The mobile station of Claim 13, wherein the first filter receives energy values from a demodulator.

15. The mobile station of Claim 13, wherein the first filter has a small, nearly constant filter length.

16. The mobile station of Claim 14, wherein the first filter removes demodulator noise from the energy values.

17. The mobile station of Claim 13, wherein the second filter has a dynamic time constant based on the input energy values.

18. The mobile station of Claim 13, wherein the second filter has a dynamic time constant based on searcher or over-the-air parameters.

19. The mobile station of Claim 13, wherein the second filter is bypassed if the output of the first filter is outside the range of the threshold value.

20. The mobile station of Claim 13, wherein the output of the second filter is provided to a pilot set maintenance function.

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